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TERRITORIAL NORMAL AND TRAINING SCHOOL

TERRITORY OF HAWAII

HONOLULU

ESTABLISHED IN 1895

CATALOGUE FOR THE YEAR 1910-11

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Territorial Normal Training School.

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THE DEPARTMENT OF PUBLIC INSTRUCTION.

Willis T. Pope, B. S. ..... Superintendent
Miss Ella H. Paris ..... Commissioner from Hawaii
John T. Moir ..... Commissioner from Hawaii
Worth O. Aiken ..... Commissioner from Maui
Mrs. May T. Wilcox ..... Commissioner from Oahu
W. L. Stanley ..... Commissioner from Oahu
Wm. Hyde Rice ..... Commissioner from Kauai
Miss Daisy Smith ..... Secretary
Charles K. Stillman ..... Assistant Secretary
T. H. Gibson ..... Normal Inspector

Territorial Normal School.

(a) Academic Department.

(b) Industrial Department.

1. Woodwork.
2. Sewing
3. Cooking.
4. Agriculture

(c) Training Department.

Faculty, 1910-1911.

Normal Department.

Edgar Wood, M. A., Principal.

Miss M. Ida Zeigler, B. L., Preceptress,
Mathematics.

Miss Ida G. MacDonald, B. A.,
History and Civil Government.

Mrs. Lilla G. Marshall, San Jose State Normal,
English and Expression Work.

Miss Ruth Shaw, B. S.,
Geography, Methods of Teaching and Psychology.

Miss Delia M. Stone, B. A.,
Literature.

Miss Elsa Peterson, B. A.,
Mathematics and English.

Miss Maud Dawson, B. A.,
Nature Study and Biology.

Industrial Department.

George S. Raymond, Tufts College, Engineering School, Industrial Work, and Chemistry and Physics.

Miss Jane M. Waite, Diploma Teachers' College, Domestic Science and Art.

Training Department.

Training Teachers.

Miss Margaret M. Cooke,
Miss Carolyn R. Fulcher,
Miss Florence M. Winter,
Miss Marie H. Douglas,
Miss E. Marjorie K. Freeth,
Miss Mary A. Grote,
Miss Laura A. Merrill, B. A.,
Miss Eva Dawson, B. A.,
Miss Helga A. Wikander.

Special Teacher, Mrs. Anna B. Tucker, Music.

HISTORY OF THE ORIGIN AND THE DEVELOPMENT OF THE NORMAL SCHOOL.

In the time of Armstrong, 1847-1860, Institutes were held for the teachers under the name of 'Normal Schools.' These formed one of the most efficient means of improving the teaching force. The so-called 'Normal Schools' of the time of Armstrong were revived under the name of Teachers' Conventions, and carried on to the great advantage of the schools by Mr. Hitchcock, 1870-1877. Mr. Hitchcock, in his official report, makes the following urgent appeal for a fully equipped Normal School:

"Before concluding, Gentlemen, permit me to call your attention to the imperative necessity now existing for a normal school in our midst. In our common schools are now gathered the future talent and hope of the nation. In proportion to the education which it receives, will be the future progress of this nation in civilization and enlightenment. In proportion to the capability of our common school teachers, will be the advance, in great measure, of education in the land. The whole statement of the case is this: The teachers of our common schools must be specifically educated for their work.

The teachers' conventions now instituted will lend a strong aid to the consummation of this desirable end. But nothing can take the place of an institution where persons are specially trained up to become educators. There is a world-wide difference between the mere teacher and the trained educator. Of the former, we have an abundance, of the latter, there is a great scarcity. If we would attain to a stand in the van of civilization and progress, we must educate our common school teachers for their work."

In 1872 rules were published requiring all teachers to attend "Institutes, Normal Schools," of eight days each, twice each year. These were conducted at convenient points throughout the group.

In 1890 one central "Convention or School" was held at Honolulu. Traveling expenses were allowed teachers coming from the outside districts. These expenses amounted to more than $4,000 at one meeting.

In 1895 a Normal School department was organized in the Honolulu High School. In 1896 provision was made for a small amount of school room training as a part of the

course offered, and the name "Honolulu Normal and Training School" was assumed.

In 1899, after the establishment of the "Normal and Training School" in the old Fort street school building, the Minister of Public Instruction reports on the condition of the buildings as affecting the work of the school and the problems to be solved and the solution proposed.

"Since the change of the training department of this school from its old quarters in the Royal School yard to the old Fort street school building, now occupied by the Normal School, there has been a marked improvement in the work of the school; it is now in better working shape. There are still, however, physical difficulties in the way.

"The school has been devoting itself to training the teachers in the most enlightened methods of instruction, bringing out the effect of coordination of studies and the value of industrial and agricultural work.

"The Normal School is the main source of supply of teachers in this country. The cause of education is, therefore, in a measure, dependent upon the kind of teacher turned out by the school.

"The colleges and normal schools of the various States are the only other available source of supply of teachers. This fact, however, should not be used as an argument against increasing the efficiency of our local Normal School. Hawaii is a country of peculiar conditions. The teacher bred to these conditions and familiar with the tendencies of the school population and the wants of education, is, without doubt, preferable to a teacher unfamiliar with these things, from some other locality, the general qualifications of the two teachers being equal, or nearly so.

"Up to this time the difficulty has been that the general average of proficiency is largely in favor of the latter class, and the Department, with the interests of education at heart, has granted a large number of applications for appointments of such teachers. Fortunately most of these have proved themselves zealous workers, adapting themselves with rapidity to the peculiarities of the country. They lack, however, the quality of permanency and of inbred affiliation with the country. Their work is of value to the system of education in introducing new ideas; and though from that standpoint possessing brilliancy, it is characterized in many cases by lack of duration. The most valuable work to the Department

is that which is to be performed by our own teachers of the intelligent class, whose qualifications will equal those of teachers of any Normal School away from here.

"The Normal School should be given better quarters and better facilities, without which there is less inducement to the pupils from our own schools to enter and take up teaching as a profession and less chance of making desirable teachers out of them."

"In the year 1904 the Superintendent in his report to the Governor of this Territory says: 'The Normal School is one of the most important educational institutions that the Department has under its charge. Under the greatest of difficulties this school has been carried on in the makeshift buildings on Fort street. The Normal pupils, as they graduate, have been sent out to various positions upon the Islands, and with hardly an exception they have been of the greatest value to the education upraising of the rising generation.'"

Problems to Be Solved.

In 1896 the educational problems confronting the teachers of Hawaii are described in the Report of the Minister of Education as follows: "The schools are weak on the side of thought work, though very good in formal work. While our standard of literacy has long been high and a proper occasion for pride on our part, our standard of real education was and is low. It is necessary to bear in mind the distinction between formal studies and thought or content studies. Reading, as such, is a formal study; reading for the purpose of gaining valuable information, as in the study of history, for instance, is a content study; writing, as such, is a formal study; writing, as a means of expressing thought deemed worthy of expression, as in composition, is a content study. Arithmetic, in as far as it ends in the understanding of relations and process, is a formal study; in as far as it is used in the acquirement of valuable information, it is a content study. Drawing, in as far as it consists in learning to reproduce certain set forms and the copying of drawings, is a formal study; used as a means of expressing that which is in the soul, it is a content study. This is especially true of the elementary study of language as in our primary schools. As a formal study it is limited in its educational value, just as are the other formal studies."

Methods Adopted for Solution of the Problems.

In the time of Armstrong and Hitchcock, Teachers' Institutes, under the name of "Normal School," attempted the task of training the teachers of the country for their work in the schools. These schools were found to be inadequate.

In 1895 it was decided that the work of instructing the teachers already in the employ of the Department should be undertaken by the Summer School and the preparation of those wishing to enter the service, by a special Normal class in the High School. This class has developed into the present Normal and Training School.

In view of the peculiar conditions due to our cosmopolitan population and of the great importance of the work in the public schools of the Territory, not only to Hawaii alone, but to the cause of education at large, it was decided in 1895 to secure the services of leading educators on the mainland to assist in the study of conditions and to advise with the Educational authorities in the organization of the work.

During the summer of 1896, Dr. Dressler, and in 1897, Dr. Brown, now Commissioner of Education at Washington, lectured to the teachers in the Summer School and advised with the Educational Authorities concerning the conditions existing in the schools and the solutions. The assistance given is described in the official reports as "incalculable." As a result of this investigation into the educational conditions in Hawaii, the Course of Study was strengthened on the side of thought work.

In 1898, Col. Parker explained and illustrated what was meant by thought work in relation to the course of study. Mrs. Parker illustrated thought work in reading, and Miss Allen, of the Cook County Normal School, illustrated thought work in the Kindergarten.

In the Summer School of 1899, Miss Zonia Baber, of Chicago University, illustrated thought work in grammar and high school grades in geography, and Miss Flora J. Cook illustrated thought work in the primary grades.

In 1900, Dr. John Dewey, of Chicago University, lectured to the teachers during a summer session of the Normal and Training School and advised concerning the working out of the content work of the course of study.

Also in the same year M. Garnier, the French Commissioner of Education, on a trip around the world examining the various school systems, spent a day while in Honolulu on

his way to the Orient, in the Normal and Training School with the Minister of Public Instruction, Hon. E. A. Mott-Smith. The purpose of his visit was to investigate our methods of work and to see what adaptations had been made of the general principles of teaching to meet the problems arising from the mixture of races in our schools. He reported the work as well adapted to the needs of our cosmopolitan population.

The adaptation referred to was (a) the enrichment of the course of study in the lower grades—for example, nature study, home geography, myths and legends, etc., and (b) the emphasis placed upon establishing the relationship between the thought and the spoken, written, or printed symbol for the thought. This relationship is the basis for all of the child's future work.

In schools where the mother tongue is the tongue of the schoolroom, this relationship is established by the home and the teacher gives attention principally to drilling the child on the recognition of the written or printed symbols, but where the tongue of the schoolroom is not the language of the home, as in Hawaii, it is necessary to first establish this relationship before giving the needed drill on the symbol. Only in this way can the teacher be sure that the child is learning to talk, write and read the English language.

Few if any educational constituencies of equal size on the mainland of the United States have had the advice of as many prominent educators in their respective lines. As a result of this investigation into conditions and the careful planning of the course of study under expert supervision, the course presents the various subjects in a natural sequence and proper emphasis is placed on the various subjects at the different stages in the development of the work. The present course of study gives due attention to the thought work on the one hand and the formal work on the other. It is the harmony of these parts that is so desirable in the school and at the same time is so difficult to secure. Special emphasis is placed on this relationship in all departments of the school work.

Stages of Development.

I. From 1847-60 and 1870-77 Normal Schools were held at convenient points throughout the country.

II. In 1895 a department was organized in the Honolulu High School for the purpose of training teachers. The course

was for one year, and the conditions of admission required a Primary Grade certificate, equivalent at that time to about Grade VI of the present course of study.

III. In 1896 provision was made for a small amount of schoolroom training as a part of the course offered, and the name "Honolulu Normal and Training School" was assumed. The conditions of admission remained the same, but the course was changed to two years.

IV. In 1899 the Normal and Training School moved to the old Fort Street School. This change of location made possible a much needed enlargement of the training department as well as a considerable development of the other departments. The course was changed from a two years' course to a four years' course for graduates of the grammar school and a one year course for graduates of a regular four years' course in a High School. Certificates were granted to those completing three years of the four years' course.

V. In 1904 the school moved to its present quarters. This made possible a general improvement in all the departments. In 1909 the certificate granted at the end of the third year was abolished and a two years' course authorized for graduates of approved High Schools with a four-year course and experienced teachers. There are now two courses offered. The Diploma granted at the completion of the four years' course and the special Diploma granted graduates of the two years' course.

VI. In September of 1911 the Normal School will offer work, as shown in Course A, of collegiate rank.

Financial Assistance of Students.

In recognition of the fact that many young people of the Territory lack the necessary means for providing themselves with a suitable education, an Association was formed in April, 1902, called the "Honor Loan and Trust Association," which collected a fund to be loaned in small sums (not exceeding thirty dollars a term) to deserving students of the Normal School, who are preparing themselves to become teachers. The pupils borrowing money agree to pay it back, with interest at 6%, within two years after they begin teaching. The total amount borrowed from this fund is $1600.00, and there has been no

loss whatsoever during the eight years of its operation. The success and helpfulness of this fund could be greatly increased if the fund itself were larger. Loans could then be made to students who desire to continue their training at such schools as the Teachers' College. There are a number of such students in the Normal School, and the desirability of giving them the opportunity to become highly efficient Territorial teachers cannot be doubted. An extension of the present fund would accomplish this.

CONDITIONS OF ADMISSION.

I. The Two Years' Collegiate Course.

1. Graduates of high schools with an approved four years' course of study are admitted without examination.
2. Teachers holding a Grammar Grade Certificate or its equivalent will be admitted on presentation of required certificate.
3. Persons not provided with the foregoing or their equivalents are admitted on examination.

II. The Four Years' Course.

1. Graduates of Grammar Schools are admitted on examination or on presentation of evidence that they have satisfactorily completed the work of the Grammar School Course.
2. High School graduates may be admitted to advanced standing.
3. Other applicants for admission may be admitted by examination.

III. The Elementary or Sub-Normal Course.

1. Candidates not qualified to enter the Normal Department may be admitted to the Sub-Normal Class where the work covers the common branches of the course of study, Elementary Algebra and Concrete Geometry.

Courses Offered in Normal Department.

The Territorial Normal and Training School maintains two courses of study, as follows:

1. A two-years' collegiate course for High School graduates, experienced teachers with a Territorial Grammar Grade Certificate, or college graduates.

2. A four-years' course for graduates of the elementary schools and an abridgement of this course for graduates of High Schools with a four-years' course. Equivalents are accepted in the discretion of the faculty.

Two Years' Collegiate Course.

The function of this course is to prepare students for advanced training in higher educational institutions. Its purpose is to supply the Territory with teachers possessing high pedagogical efficiency. It will be a most potent factor in rapidly and progressively raising the educational work and ideals of the school system.

The requirement for admission to this Collegiate Course is the satisfactory completion of an approved curriculum in a secondary school, covering the usual requirements for college entrance.

The course will consist of two years in the modern languages, in the English language and literature, in mathematics and the natural sciences, and one year's work in history.

Students satisfactorily completing this course can enter Teachers' College, Columbia University, without examination, and with the rank of Junior, finishing there in two years.

The College of Hawaii admits graduates of the two years' course with the rank of Juniors.

The Four Years' Course.

The course of four years is designed to meet the needs of those persons that enter the school having the minimum scholarship. The object of the course is to give as thorough and complete a preparation for teaching in the schools of Hawaii as can be given to a student of average ability who possesses, on entering, a fair knowledge of the subjects of the elementary school course.

The abridgement of the course makes provision for High School graduates and others having an equivalent preparation who may wish to be admitted to advanced standing in the four years course. High school graduates usually have only such knowledge of the elementary school branches as they have acquired at an early age and in the grades below the High School. This knowledge falls far short of what is needed from the standpoint of one who wishes to teach the subjects of the school course.

The California Department of Education, in March, 1906, accredited the four years' course of the Territorial Normal and Training School as of equal rank with the four-year course in the State Normal Schools of California.

The College of Hawaii admits graduates of this course without examination, and gives, in individual cases, credits for work done in the school.

Course A (Collegiate).

For graduates of Course B, teachers with Grammar Grade Certificates and graduates of approved High Schools. Time required, two years; leading to a diploma.

First Year.	Second Year.
Methods of teaching in the Primary and Grammar Grades	School management and school supervision
Nature Study	Personal Hygiene and Sanitation
Biology	Applied Biology
Geography	Geology
Psychology, child study and general methods	History of Education
Expression Work	Drawing
Music	Music
Electives	Electives
Teaching	Teaching

This course is best adapted to those graduates of approved High Schools who wish to prepare for grade positions, schools of mixed grades, or for principalships.

Course B (General).

For graduates of approved Grammar Schools and teachers holding Primary Grade Certificates. Time required, four years; leading to a Life Diploma.

Freshmen.	Sophomore.
Arithmetic	Algebra
Algebra	Nature Study
Concrete Geometry	Geography
Nature Study	Mediaeval & Modern History
Ancient History	Literature
Literature	Expression Work
Expression Work	Music
Music	Teaching
Industrial Work	
Geography	

Junior.	Senior.
Geometry	Geometry
History (English & Hawaiian)	Arithmetic
Literature	History (American) and Civics
Physiology and Hygiene	Literature
Physics and Chemistry	Geography
Expression Work	Biology
Music	Psychology, Child Study and
Teaching	General Methods
	Music
	Teaching

Course C (Special).

This course, covering a minimum time of one year, is open to persons who have taught in the public schools of the Territory. The student, on the recommendation of the faculty, may take such subjects from Courses A and B as his previous preparation warrants. On the completion of all the required work for Course A or B the corresponding diploma will be granted.

COURSES ARE OFFERED IN THE NORMAL DEPARTMENT IN THE FOLLOWING SUBJECTS.

I. Mathematics:
   - a. Arithmetic
   - b. Elementary Algebra
   - c. Plane Geometry
   - d. Solid Geometry

II. Language:
   - a. English Grammar
   - b. English Composition
   - c. Elements of Rhetoric
   - d. Modern Languages

III. Science:
   - a. Biological
     1. Zoology
     2. Botany
   - b. Physical Science
     1. Physiography
     2. Physics
     3. Chemistry
   - c. Nature Study

IV. Art:
- a. Illustrative Drawing
- b. Form, color work, etc.
- c. Cooking, sewing, woodwork, gardening and printing
- d. Reading
- e. Music

V. Social Science:
- a. History
- b. Civil Government

VI. Literature:
- a. Folklore and myths
- b. English literature
- c. American literature

VII. Physical Culture:
- a. Schoolroom gymnastics
- b. Games in and outdoors
- c. Schoolroom hygiene

VIII. Professional Work:
- a. Theoretical
  1. Psychology
  2. Pedagogy
  3. History of Education
- b. Practical
  1. Teaching
  2. Organization and Supervision

The Building and Equipment.

The Normal and Training School occupies two buildings at the corner of Hackfeld and Quarry streets. The main building is 100 by 70 feet and contains three stories and a basement. It is of Flemish bond brick with terra cotta trimmings. On the first floor are six class rooms, an office, a supply room, a library, and a cloak room. On the second floor are eight class rooms, and on the third two class rooms and an assembly hall.

The Manual Training building, containing two rooms, stands near the main building. One room is devoted to woodwork and the other to domestic science. There are benches for about twenty pupils per period in the woodworking room, and accommodations for the same number in the room devoted to domestic science. All the equipment is modern.

The Science Department is supplied with chemicals, a

stereopticon, microscopes, a collection of rocks and minerals, two sets of relief maps, and about six hundred geographic views.

The history department is supplied with maps, charts, about two thousand pictures, Ridpath's History of the World, Ratzel's History of Mankind, copies of all the chief school text-books on history, and a collection of about one hundred books bearing on the subject.

Purpose and Organization of School.

The purpose of the school is (a) to aid the student in acquiring the art of teaching by practice under intelligent direction, and to instruct him in the science of education; (b) to teach the subject-matter of the elementary and High School courses, and such subject-matter of collegiate rank as will give background for the work of teaching and supervision.

There are two departments in the school, the Normal Department, giving instruction in the academic subjects of the course and the science of education, and the Training Department, where the cadets are taught to teach by teaching under close supervision.

In the Normal Department instruction is given in the subject-matter of elementary and High School courses, and such subject-matter of collegiate rank as will supply background for the work of teaching and supervising in the elementary grades. The subject-matter of the elementary course is taught to give the teachers of the Normal Department an opportunity of actually instructing the students in the best methods of teaching the subjects of the course. In this way the Normal Department keeps in touch with the Training Department and directs the method of the school. The school is a unit in regard to the methods employed in the school.

Training Department.

The training students of the Normal Department are divided into three classes or groups for convenience of work in the Training Department, and the day in the Training Department is divided into three parts: 9:00-10:30 a. m., 10:45-12:00 m., 12:30-2:00 p. m., to admit of each division having charge of the work during one-third of the day. Each group teaches one week in each period, consequently three weeks in each room. The groups then advance a room, the group in Grade VIII beginning the work in Grade I.

In this way each cadet teaches all the subjects in each grade and gives one-third of his time for three years to acquiring the art of teaching, and the remaining two-thirds to the study of academic subjects.

The Training Department includes the grades below the High School. One room in the Training Department is to be used as a miscellaneous school.

In the Training Department the training teacher has the general supervision of the room. She directs the cadets in the arrangement of the subject-matter, suggests the method of presentation, corrects the lesson plans, keeps a record of the ability of the cadets to teach and manage a room, teaches model lessons and gives assistance to the cadets in the teaching of the lesson.

The cadets take charge of the rooms in which they teach, prepare the lesson plans, care for the school property, and supervise the pupils on the grounds. In this way the cadets are prepared to take charge of any school to which they may be appointed.

Pedagogy.

The study of the science and art of teaching is taken up under the following heads:

1. The Teaching Process:
    - (a) The nature of the child
    - (b) The subject-matter of the course
    - (c) The child's relation to the subject-matter
    - (d) The function of the teacher
2. Special Method in Teaching:
    - (a) Primary Reading
    - (b) History
    - (c) Geography
    - (d) Natural Science
    - (e) Arithmetic
    - (f) Writing and Spelling
3. General Method:
    1. The Chief Aim of Education
    2. Relative Value of Studies
    3. Interest
    4. Correlation
    5. Induction
    6. Apperception
    7. The Will

4. School Organization, Supervision and Management.
5. Psychology and Child Study.
6. History of Education.

Courses 1, 2 and 3 are based on McMurray's Special and General Method, adapted to meet the conditions in Hawaii.

School Organization, Supervision and Management.

"Administration of Public Education in the United States" by Dutton and Snedden, will be used as a basis for the work.

The school: function, relation to the home and community, maintenance, finances, equipment, organization, classification, grading, promotion, courses of study, programs, study, recitation.

The teacher: qualifications, certification, selection, salaries, tenure.

Discipline: incentives, rewards, punishments.

Supervision by Boards of Education: superintendents, supervisors, principals, methods and objects, inspection, tests, teachers' meetings, parents' meetings, reports, records.

Compulsory attendance, reformatory institutions.

Construction of school buildings: sanitation, heating, ventilation, lighting.

Medical inspection: visiting physicians, nurses.

Evening schools, vacation schools, playgrounds, evening lectures, public libraries.

The school law and regulations of the Department of Public Instruction of Hawaii.

This course may be taken by the Seniors of Course A.

DEPARTMENT OF EXPRESSION WORK.

Organization:

Class and Courses—	Number of periods per week.
Freshman—	
Elementary Story Telling and Expression Work	5
Elementary Talking Class	5
Sophomore—	
Methods in Teaching Stories and Expression	5
Juniors—	
Methods in Teaching Stories and Expression	5

Seniors—

Methods in Teaching Stories and Expression	5
Advanced Talking Class	5

Relation to Other Departments:

This Department is related primarily and directly to the Grades, and incidently to the other Departments in the Normal School.

Through the Grade work the Department is related to the Departments of:

1. Literature
2. History
3. Natural Science

Relation to Training School:

This Department directly supplies the individual needs of the cadets in their grade teaching.

The subject-matter of the course is that of the grades.

As occasion requires, the training teachers confer with this Department for suggestions and material.

I. Scope of this Department:

In this Department the pupils get the following:

1. The subject-matter for the story work of the grades.
2. The training in the telling, and illustration of these stories. This includes continuous drill work in talking, grammar and composition, blackboard sketching, chalk modelling, other forms of modelling, painting and other forms of graphic illustration, paper cutting, dramatizing, etc.
3. The methods of outlining the stories, preparing selected sentences, model paragraphs, and other features of grade teaching.

II. Equipment:

Blackboards, strawboards, chalk, portable blackboards, and easels.
Clay boards, modelling clay.
Sand trays, sand tables, coral sand.
Drawing paper, charcoal.
Water color outfits.
India ink, Bristol board.
Scissors.

Five thousand pictures, culled from many sources, and used by the pupils as illustrative material, supplementing the blackboard sketches.
Miscellaneous materials for dramatization.

Illustrative Work.

Our art work is designed to give the pupil the practical knowledge of and the skill in the modes of expression which he needs and must use constantly in teaching. The two essentials, the idea and expression of the idea, the thought and the symbol of the thought, the real substance and its expression, must go hand in hand, the one never being presented without the other. For pupils in general, but more particularly for non-English speaking pupils, it is very desirable that the teacher in charge should be able to illustrate quickly the thought which he is expressing.

It is not the skillful artistic finish he needs, but simply such outlines as will serve the purpose of pure illustration, so that he may be able to present in a more pleasing and instructive manner any subject in the school work.

The art work consists in making drawings or pictures along the line suggested by the course of study, e. g., pictures of home life, chalk modeling of geological formation, and relief maps, diagrams of animal and vegetable life, sketches of the industries of the Hawaiian Islands, drawing of various types of people and illustrations of children's stories.

The teacher draws as he talks; thus, in the story of "Chicken Little":

Chicken Little was away from the farmyard in which he lived; (draw farmyard in the distance while talking about it, and speak about the simple principles of perspective).

The naughty little chicken ran away from this farmyard (point to farmyard) and came to this tree; (draw tree and speak about the simple principles of light and shade).

Under the tree stood Chicken Little (draw the chicken and call attention to form). He began scratching and soon found a worm; (draw worm in chicken's mouth).

While he was enjoying this rare treat the wind began to blow, and down came a leaf on the wayward chicken's tail; (draw leaf). (This completes the first illustration.)

Away ran the frightened little chick; (draw him running and call attention to the position of head, wings and legs).

On and on he went until he met Hen Pen; (draw hen and little chicken talking to her). "O, Hen Pen!" he cried, "the sky is falling." "How do you know that?" answered Hen Pen. "Oh! I saw it with my eyes and heard it with my ears, and a part of it fell on my tail." "Let us run," said Hen Pen; and they ran on in great haste until they met Duck Luck; (draw the duck and call attention to its bill, web feet, and so forth).

(The above conversation took place again) and the three ran on together and soon met other friends; (draw goose and turkey and call attention to the main points of difference).

After this wonderful story was again told, they all decided to go on and tell the queen. On the way they met a fox and told him the latest news. The cunning fox (draw fox leading the way) said he would lead them to the queen's mansion; but instead took them to his den (draw den and call attention to the perspective), and they never came out again.

The different modes of Expression are:

Drawing—pen, pencil, charcoal.
Color—chalk, water color.
Modeling—chalk, clay, sand.
Dramatizing.
Paper cutting.

The teacher pays particular attention in

Grade I. to drawing houses
Grade II. to drawing trees
Grade III. to drawing animals, emphasizing form
Grade IV. to drawing land forms, emphasizing perspective
Grade V. to drawing figures and proportion; and in Grades VI, VII and VIII, to all the foregoing.

As the pupil draws his pictures from stories, from history, from geography or from nature study, he is led to see for himself certain underlying principles, by constantly having correct forms placed before him. The special merits of this system of drawing are: directness, simplicity, and capability of being used by all the pupils, besides being a practical and not a theoretical treatment of the subject.

LEAFLETS.

Leaflets containing the stories are distributed, from time to time, to the students.

In the Freshman class, the story is studied and learned by the students, and told and illustrated the next day in class.

The other classes do likewise, but also use these stories at once, in their grade teaching.

Outline of the Story.

The teacher and class develop the outline of the story according to the following scheme:

Subject e. g. History, Geography, Nature Study.

Topic e. g.-New England Fisheries.

Heading—Points.

I. Divide the subject into topics.
II. Divide the topic into headings and put this skeleton on the board.
III. Divide one heading into points.
IV. Develop this heading into a well rounded paragraph which is made the basis for instruction in grammar, composition, and rhetoric.
V. Direct the class in filling out the points under each heading, using care to maintain the logical order.
VI. Carry out the same plan with each topic.

COURSE I. *FRESHMAN.*

ELEMENTARY STORY TELLING AND EXPRESSION WORK.

Daily throughout the year:

General survey of story work of the eight grades each being studied as follows:

1. Teacher tells and illustrates the story.
2. Pupils illustrate story, at blackboard.
3. Pupil tells the story, using illustrations that she has made on the board.
4. Pupils write the story or some assigned portion thereof.
5. Correction of written work.

At the completion of this course each pupil has:

1. Six Augsburg's Drawing Tablets filled with illustrations for the stories.
2. A note book containing:

1. The corrected forms for their errors in written and spoken English.
2. Correct forms for correspondence, including business, social, and other kinds of letters.
3. Outlines of stories, selected sentences, model paragraphs, topical questions, etc.

The following excursions are made, for outdoor sketching:

1. School yard,
2. Pauoa Valley,
3. Diamond Head,
4. Beach.

Dramatization of Stories:

Throughout the primary grades many of the stories are dramatized for the purpose of:

1. Making vivid the narrative of the story.
2. Aiding the mastery of English.

The dramatization is done as follows:

1. The parts are largely impromptu, without costume. Occasionally they are assigned beforehand, and simple costuming is done.
2. The work is directed by the teacher, but the details are worked out by the pupils.
3. The scenery is drawn upon the blackboard, beforehand, by the pupils, who get the thought material for the scene from the story itself.
4. Whenever the story calls for vocal or instrumental music, it is incorporated into the drama, using available instruments.
5. The drama is then used as subject matter in oral expression.

COURSE II. *FRESHMEN.*

ELEMENTARY TALKING CLASS.

Daily throughout the year:

Individual oral expression upon:

1. Home affairs,
2. Dramatization of stories,
3. Assigned topics.

The teacher corrects all errors in expression, giving explanations, fundamental rules, and typical illustrations of these rules.

Vocal training, emphasizing the correct pronunciation, is an important part of this course.

FRESHMEN INSTRUCTION IN GRAMMAR, COMPOSITION AND RHETORIC.

A considerable part of the work of this Department is the development of correct language expression, using, in general, the following method:

1. Have one point in grammar as a center for a given length of time, as tenses of verbs. Give definite instructions on this point in connection with the development of the paragraph.

2. The mistakes of the pupils are grouped about this center.

3. Select from pupil's papers, and oral work sentences containing errors, and write these sentences correctly with place of errors underlined; and,

(a) Require pupils to copy correct form of sentence in a correction book.
(b) To memorize the corrected form.
(c) To select short typical sentences using troublesome forms of nouns, pronouns, verbs, etc.
(d) To conjugate troublesome verbs.
(e) To decline nouns and pronouns using sentences.
(f) To underline in the written story the forms emphasized in the paragraph.
(g) To prepare from the grammar text book the points touched on in class.
Each pupil must have a grammar.

COURSE III. *SOPHOMORES.*

METHODS IN TEACHING STORIES AND EXPRESSION.

Daily throughout the year:

The work of this course is grouped as follows:

1st. Practice in telling and illustrating the stories that the cadets are actually teaching in the grades, the practice work done in the morning being upon the story and illustrations used that same afternoon. This practice work is carefully supervised and corrected, continuing until the cadet can accurately and easily tell the story and make the required sketches.
This work is done during the week in which the cadets are teaching the stories, e. g. the afternoon.

2nd. The other week's work follows in general this program:

Friday.

Teacher tells and illustrates a typical story. Discussion of some particular features of the language and the illustration work, and practice upon these features.

Monday.

Individual telling of stories, before the whole class, the stories being those of the leaflets given out by the teacher on the preceding Friday.

Tuesday.

Monday's story is outlined by the teacher, on the board, and a model paragraph and topical questions developed by the teacher and the class. Another similar story is assigned, and each pupil works out an outline, model paragraph, and topical questions.

Wednesday and Thursday .

These days are used for correction of outlines, paragraphs, etc.; for water color work, modeling, drawing from objects; for dramatizing; and for any other phases of the work that need particular emphasis at this time.

A considerable amount of drawing and painting from objects, and from nature is done in courses 3-5.

COURSE IV. *JUNIORS.*

METHODS IN TEACHING STORIES AND EXPRESSION.

Daily throughout the year:

Course IV. is conducted in the same manner as Course III., except that the work is of a higher grade, and the pupils are expected to have greater proficiency.

COURSE V. *SENIORS.*

ART-EXPRESSION IN THE SCHOOL.

Daily throughout the year:

This course supplements and completes the work of the previous three years' training. The pupils, now proficient in blackboard sketching and having mastered the fundamental principles of drawing and the forms of expression work, are now prepared to consider the art expression work of the school from a broader outlook.

The main topics of this course are as follows:

1. The artistic treatment of
   a. The school room.
   b. The school house.
   c. The school yard.
2. Relation of art work to Nature Study (water color).
   a. Hills and valleys.
   b. The plains.
   c. The ocean.
   d. The sky.
3. Studies of Best Art, including Greek and Roman; Japanese; Hawaiian.
4. Relation of Art to the Home.
   a. Architecture.
   b. General site and surroundings.
   c. Furnishings.

At the completion of this course each pupil has:

1. A note book containing lecture-notes, assigned topics, original outlines, etc.
2. A series of water color sketches, illustrating lessons in nature study, home geography, Hawaiian legends, etc. These sketches will be used by the pupils in their grade teaching.
3. A series of diagrams illustrating, model school yards, houses, and rooms, model home yards, homes and rooms, pieces of furniture, interior construction, etc.

ADVANCED TALKING CLASS.

COURSE VI. *SENIORS.*

Daily throughout the year:

Conversation on familiar topics, with careful correction work by teacher in charge.

The following topics illustrate the type of material used for talking:

1. Home life.
2. Amusements.
3. Current events.
4. Schools.
5. Holidays.
6. Island trips.
7. Army and navy news.
8. Island characteristics.
9. School life.

Suggestions to Teachers.

New York State Education Department.

The teacher should be able to do before the class what she requires of the pupils, not for the purpose of allowing them to copy her work, but to show them the use of the material, and how to carry out the work, giving individual help whenever necessary.

Lead pupils to aim for good proportion and balance of masses, truthful direction of lines, good spacing, harmonious coloring, and to note the growth and beauty of specimen.

Require pupils to make several attempts, not for the purpose of getting a finished product, but for practice and freedom.

Adapt size of paper to specimen or object to be drawn.

Do not allow pupils to work on small pieces of paper as it encourages small work and destroys freedom of movement.

All work should be large and free.

A large part of the work during the first two years should be carried out in mass, avoiding detail.

Do not discourage any effort, however poor.

Particular attention should always be given to the decorative placing of every drawing on the paper, also the name, date and other written or printed matter.

Apply the drawing and manual training to the other school work whenever possible.

In grouping objects every group should possess unity, repose, variety and harmony, and the general mass of the group is most pleasing if triangular in shape.

Objects that are dissimilar in shape and are harmonious in color usually group well.

Always exhibit specimens of the work for class observation and criticism, laying great stress on why some results are the best. Save the best work for exhibit until better is produced.

Principles of Free-Hand Perspective.

Perspective is the art of representing objects on a flat surface as they appear to the eye when affected by distance and position.

Distance affects the apparent size of objects and parts of the same object; the farther an object or part of the object is from the eye, the smaller it will appear.

Position affects the apparent form of an object.

Surfaces seen obliquely are foreshortened and do not appear in their true shape.

A circle seen obliquely appears as an ellipse.

Parallel lines retreating from the eye appear to converge to points called vanishing points.

The *eye level* is an imaginary horizontal line which represents the level of the eye.

The *center of vision* is the point in the eye level directly opposite the eye.

The *line of direction* or *line of sight* is an imaginary line running from the eye to the center of vision.

The *center of vision* is the vanishing point for all lines that are parallel with the line of direction.

All retreating horizontal lines have their vanishing points in the eye level.

Lines that are parallel with the line of direction vanish in the center of vision.

Lines that are perpendicular to the line of direction whether vertical, horizontal, or oblique, have no vanishing points, but keep their relative direction.

Oblique lines that are not perpendicular to the line of direction have their vanishing points above or below the eye level, as roofs of houses, roads and fences running up or down hill.

Parallel perspective deals with objects whose edges are parallel with the perpendicular to the line of direction. The vanishing point is in the center of vision.

Angular perspective deals with objects whose edges are vertical and horizontal; the horizontal edges make oblique angles with the line of direction; the vanishing points are in the eye level, at the right and left of the center of vision.

Linear perspective deals with the relative size and shape of objects, foreshortening, convergence and vanishing points.

Aerial perspective deals with the appearance of objects as affected by atmospheric conditions. Objects appear less distinct—in form, light and shade, and color as they recede from the eye. They lose their color and appear gray in proportion to their distance.

The terms *light and dark* and *light and shade* are not synonyms. *Light and dark relates* to the tone value in a picture without regard to light, shade and shadow. It also refers to color values in objects; a blue object will be represented by a darker tone than a yellow object in the same light.

Mass drawing is the representation of objects by means of varying tones or color without special reference to outline.

LIST OF STORIES TAUGHT IN GRADES I.-VI., WITH THE CHIEF SUBJECTS IN THE DRAWINGS USED TO ILLUSTRATE EACH STORY.

Grade I.

1. Five Little Mice—animals.
2. Mice and Cat—animals.
3. House That Jack Built—buildings, animals.
4. Jack and Jill—people.
5. Old Woman and Pig—people, buildings, animals.
6. Little Red Hen—buildings, animals.
7. Chicken Little—animals.
8. Pilgrim's Story—people, buildings, ships.
9. First Santa Claus—people, buildings, toys.
10. Donkey and Salt—people, animals.
11. Hok Lee—people, buildings.
12. Monkey and Crab—animals, trees.
13. Boy who Called Wolf—people, animals.
14. The Flood—people, sea, ships, animals.
15. Baby Moses—people, river, buildings.
16. Kila—people, river, huts, boats.
17. Town Musicians—people, animals, buildings.
18. Ugly Duckling—people, animals, buildings.
19. How the Crickets Brought Fortune—people, buildings, animals.
20. Red Riding Hood—people, buildings, animals.
21. Jack and the Beanstalk—people, buildings, animals.
22. Three Bears—people, buildings, animals.
23. Clytie—people, shells, fish, sea.

Grade II.

1. Chicken Little—animals.
2. Pancake—people, animals, buildings.
3. Mouse Without a Tail—people, animals, building, sea.
4. Three Billy Goats Gruff—river, animals, trees.
5. Little Two Eyes—people, animals, buildings, trees.
6. Puss in Boots—people, animals, buildings, river.
7. Jack and the Beanstalk—people, animals, buildings.
8. Little Thumb—people, forest, buildings.
9. Cinderella—people, buildings, animals, carriage.
10. Sleeping Beauty—people, buildings, palace, forest.
11. The First Thanksgiving—people (Indians), trees, ship, log houses.

12. Gulliver's Travels—people (large and small), buildings, ships, animals.
13. David and Goliath—people, armor, animals.
14. The First Christmas—people, animals, angels.
15. Hyung Bo—people (Chinese), huts, birds, vines.
16. Willow Pattern Plate—people (Chinese), lake, birds.
17. Discontented Stonecutter—people (Japanese), forest, sun, rain, animals, sea, litter.
18. Shippeitaro—people (Japanese), animals ,temples.
19. Wonderful Teakettle—people (Japanese), teakettle.
20. How the Spark of Fire Was Saved—people (Indian), animals, hut.
21. Long Voyage—people (Natives), sea, heiau, canoes.
22. Maui and the Alae Birds—people (Natives), sea birds, tropical scenery.
23. Battle of the Owls—people (Natives), owls, sea, battle.
24. Maui and the Sun—people (Natives), sea, sun, volcano.
25. Theseus—people, Minataur, ship, buildings.
26. Hercules in Quest of the Golden Apples—people, animals.
27. Pygmies and Giant Antaeus—people (large and small), animals.
28. Apollo and Python—people, snake, buildings.
29. Ulysses and the Bag of Winds—people, ship.
30. Thor and His Hammer—people, Asgard.
31. Iduna and the Golden Apples—people, Asgard, birds.
32. Baldur—Asgard, people.
33. Ice Maiden—people, mountains, animals.
34. Robinson Crusoe—people, ship, animals.
35. Clytie—people, shells, sea, fish.

Grade III.

1. Swiss Family Robinson—people, ship, animals.
2. Rikki, Tikki, Tavi—people, birds, animals.
3. Red Ruff—people, forest, birds, animals.
4. Cotton Tail Rabbit—animals.
5. How the Elephant Got His Trunk—animals, river.
6. King Alfred and the Cakes—people, fire, palace.
7. The Wise Men of Gotham—people, forest, animals.
8. Allan-a-Dale—people, forest, building.
9. Little John—people, river, building.
10. Archery Contest—people, forest.
11. Friar Tuck—people, river, forest.
12. Feast in Wood—people, forest, animals.
13. Robin Hood's Death—people, building.

14. King Canute—people, sea.
15. White Ship—people, ship.
16. Black Douglass—people, castle.
17. Hiawatha—people (Indian), animals, birds, river, wigwam.
18. Jamestown—people (Indian), ships, village (log huts).
19. Pocahontas—people, ships, village (log huts).
20. John Alden—people, ships, village (log huts).
21. Mayflower—people, ships, village (log huts)
22. First Thanksgiving—people, dinner, ships, log huts.
23. Daniel Boone—people, animals.
24. Budding Stone—stones.
25. David—people, armor, instruments, animals.
26. Joseph—people, pit, animals, prison, chariot.
27. Shepherd of Bethlehem—people, animals, angel, manger.
28. Wise Men—people, animals, angels.
29. St. Nicholas—people, animals, toys, buildings.
30. Aladdin—people, cave, palace, lamp.
31. Lake of Gems—people (Chinese), crickets, fowl, huts, river, reptile.
32. Cricket Fight—people (Chinese), crickets, fowl, huts.
33. Chinese Beauty—people (Chinese), China Wall, building, lake.
34. White Snake of Thunder Peak—people (Chinese), snake, lake, buildings.
35. Grateful Foxes—people (Japanese), animals, river, buildings.
36. Chin Chin Kobakama—people (Japanese), interior building.
37. Cherry Stones—people (Japanese), interior building.
38. Enchanted Waterfall—people (Japanese), waterfall, interior.
39. Boy Who Drew Cats—people (Japanese), temple, animals.
40. Paao—people (Natives), canoes, heiau.
41. Maui and the Sun—people (Natives), sun, volcano, sea.
42. Pele and Flood—islands, people (Natives), ghosts, Pele, sea.
43. Kaululaau—islands, people (Natives), ghosts.
44. Holua Race—people (Natives), islands, sleds.
45. Story of Ab—people, animals.
46. Pomegranate Seeds—people, caves, sea.
47. Perseus—people, cliff, sea.
48. Argonauts—people, ships, animals.

49. Philemon and Baucis—people, trees, buildings.
50. Siegfried—people, castle, mountains.
51. Sweet William—people, birds, animals, castle.
52. Columbus—people, sea, ships.
53. Cook—people, sea, ships.
54. La Salle—people, sea, ships.
55. Dike of Holland—people, dike, sea.
56. Pied Piper—people, rats, sea.

Grade IV.

1. Robinson Crusoe—people, ships, animals.
2. Uncle Remus Stories—people, animals.
3. Uncle Tom's Cabin—people.
4. Elizabeth—people.
5. Sir Walter Raleigh—people.
6. Armada—ships.
7. John Smith and Jamestown Settlement—people, ships, sea, log huts.
8. Evangeline—people, ships, buildings, river.
9. Henry Hudson—people, icebergs, ships.
10. Dutch Settlement—people, ships, settlement.
11. Rip Van Winkle—people, river, buildings, animals.
12. Miles Standish—people, interior, ships (battle).
13. Gemila—people, caravans, tents, trees.
14. Abraham—people, wells, animals.
15. Moses—people, river, ark.
16. Saul and David—people, tents, caves.
17. Solomon—people, animals, temple.
18. Christmas Story—people, angels, manger.
19. Woo of Whang Ho—people (Chinese), river, animals, building.
20. Lu Sing—people (Chinese), kite, interior.
21. Marco Polo—people, ship, animals, China Wall.
22. Catarina of Venice—people, gondola.
23. Crusades—people, ships, wall, cities.
24. Columbus—people, ships.
25. Baldwin of Jerusalem—people, buildings, walled cities.
26. Richard of England—people, ships, harp, walled cities.
27. Forty-seven Ronins—people (Japanese), fighting, cemetery.
28. Magellan—people, ships, land.
29. Kamehameha — people (Native), gulch, valleys, grass house, canoe, heiau.
30. Kapiolani—people (Native), volcano.

31. Mowgli's Brothers—people, animals.
32. Rajpoot Marriage—people, animals, buildings.
33. Story of Ulysses—people, ships (galleys).
34. Lotus Eaters—people, ships (galleys).
35. Cyclops—people, ships (galleys), animals.
36. Bag of Winds—people, ships (galleys).
37. Circe's Palace—people, animals, ships (galleys).
38. Phaeacian Lands—people.
39. Odin's Search for Wisdom—Gods, Asgard, Migard.
40. How Odin Brought the Mead to Asgard—Asgard, Migard.
41. Thor's Wonderful Journey—gods, animals.
42. How Thor Lost His Hammer—gods.
43. Buccaneers—people, fighting, ships.
44. Captain Kidd—people, fighting, ships.
45. Lorelei—people, waters, cliffs.
46. Mouse Tower in the Rhine—people, buildings, river, animals.
47. The Miester Singers—people, buildings.
48. The Tempest—people, forests, ships.

Grade V.

First Term.

Cabot—Review by comparison with:
Columbus—map, people, ships.
Magellan—map, people, ships.
Docas, The Indian Boy—people (Indians), games.
Alfred the Great—people, interior of hut.
The Argonauts—people, forests, galleys.
Wallace and Bruce—people, battle, castle.
De Soto—people, boat, ship, river.
Trojan War—people, walled city, chariots, horses.
Sir Francis Drake—map, people, ship.
David and Jonathan—people, river, battle.
Damon and Pythias—people, games.
Moses and Exodus—people, river.
Champlain—people, river, ship, village.
Marquette and Joliet—map, people, forests.
Modes of Travel—
Watt and the Steam Engine—steam engine.
Primitive Boats—canoes.
Fulton and the Steam Boat—steam ships.
Oriental Travel—sedan chair, jinrikisha.
Christmas in Many Lands — Christmas trees, interior of homes.

Second Term.

Cyrus and His Grandfather—people, court, scene, animals.
Croesus—people, animals, walled city.
Leonidas at Thermopylae—battle.
Salamis—ships.
George Roger Clarke—people, Indian village, river, boats, mountains.
Horatius—people, river and bridge.
The Favoured of Baal—people, chariots, walled city, animals.
Fremont—people, mountains, fort, river.
Zenobia of Palmyra—people, animals, battle, city.
Story of Cinderella—people, garden scene, river, birds.
Lewis and Clarke—people, mountains, river.
Powell—people, mountains, river.
Julius Caesar—people, Greek architecture.
Cortez—map; people, ships, Aztec dwellings.

Third Term.

Siegfried—people, mountains, animals, forest.
The Tell-Tale Foot—people, castle, animals, forest.
Daniel Boone—people, forests, animals.
King Arthur Stories—people, games, battles, forests.
William the Conqueror—people, ships, battle, castle.
Armada—ships.
King John and Great Charter—people, armor.
Gilbert the Page—people, costumes, animals.
Richard I.—people, ships, tower, walled city.
Miles Standish—people, interior of houses, forests.
Eli Whitney—cotton gin.
Morse—Telegraph.
Edison—Telephone.

Grade VI.

First Term.

1. Review—Explorations in America:
   Spanish Claims—map; people (Indians).
   Cortez and Spanish, Aztec dwellings.
   French Claims—
   Cartier—maps; people, French explorers, Indians, missionary priest, Indian dwellings.
   English Claims—
   Cabot—maps; ships.

2. Kablu, the Aryan Boy—primitive dwelling, pottery, mountains.
   Darius, the Persian Boy—maps.
   Persian Education—people, games.
3. Elizabeth—courtiers and court costumes.
   Raleigh—map; ships.
4. Virginia: Country Settlement:
   Life in Jamestown—people (Indians), ships.
   Government—Indian dwelings, log houses, river scene.
   Berkeley and Bacon—people.
5. Greek Gods on Olympus—gods, forest.
   Greek games in honor of the gods—games, Greek architecture.
   Greek Oracle—village, mountains.
   Croesus and the Oracle—people.
   Ulysses in the Lower World—people, animals.
6. New York:
   Hudson—maps; people, ships, icebergs.
   Stuyvesant—Dutch customs, Dutch dwellings.
   English Control—ships.
7. Persian Wars:
   Darius and Marathon—battle.
   Miltiades—map.
8. Eric, Leif, Olaf—Norse ships, Norsemen, storms at sea.
   Longfellow's "Skeleton in Armor."
9. Massachusetts Country:
   Colonists—map; Puritan's costumes.
   Life of Winthrop—map; ships, river.
   Life of Miles Standish—people, ships, log houses.
10. Xerxes and Thermopylae—animals, battle.
    Athens.
    Salamis—ships.
11. Normans:
    William, the Conqueror—maps; ships, battle.
12. Pennsylvania—map; people, Quaker and Indian log houses, trees.
    William Penn.
    Colonists.
    Government.
13. Pericles and Athens—people, Greek buildings.
14. Christmas Spirit:
    Dickens's Christmas Carol—people, Christmas scenes.

Second Term.

1. Relation of Indians and Colonists:
   Early Indian Wars—people, battles.
2. Alcibiades—people, animals, games.
   Lysander—Greek architecture.
3. Richard I. and the Crusade—people, ships, walled city.
4. Champlain—map; people, animals, ships.
   French and English Colonists.
5. Socrates—people.
6. Xenophon—battle.
7. Ivanhoe—people, castle, games, siege, forests.
8. The Last French and Indian War—map; people.
9. Philip of Macedon—game.
10. Henry V., Joan of Arc—people, battle.
11. Montcalm and Wolfe—people, ships.
    Pontiac Conspiracy—battle.
12. Rome:
    The Tarquins and Junius Brutus—people, buildings.
13. Lamb's Tale.

Third Term.

1. Expulsion of the Acadians:
   Evangeline—people, river, village, ships, buildings.
2. Punic Wars—Rome and Carthage:
   Regulus—people, galley.
   Hannibal—people, animals.
3. Gods of the Teutons—people, animals.
   Nibelungs—people, dragon.
4. Development of Government in Colonies.
5. Story of the Tempest—people, wreck, forest.
   Merchant of Venice—people, buildings.
6. Story of Alaric the Visigoth—people, river.
   Story of Attila, the Hun—people, battles, animals.
7. Life in Colonial Times:
   Industrial—houses, implements.
   Social—people, games.
8. Genseric, the Vandal—people.
   Theodoric, the Ostrogoth—people, animals.
9. Constantine—people.
   Diocletian—people, Roman architecture.
10. Review and Examinations.

DEPARTMENT OF HISTORY AND LITERATURE.

This department offers the following courses in the method and practice of teaching history and literature in elementary schools:

History Courses—

Ancient History—Freshman.
Mediaeval and Modern History—Sophomore.
English History—Junior.
Hawaiian Legend and History—Junior.
American History and Civics—Senior.
Method of Teaching History in Elementary School.
Method of Supervision in Elementary School.

Literature Courses—

Selections from world's literature in four courses.
Methods of Teaching and Supervision in Grammar and Primary Grades.

The four main courses in history seek to present the great topics of the history of mankind and study the successive civilizations and their inter-relations.

The literature courses aim to present selections and types from the world's literature with studies of some of the sources.

The History and Literature courses give subject-matter, setting and method of teaching for the history and story work in the grades of the Training School.

Correlation with other subjects—

History and literature are most closely related, the one as the story of race life, the other the expressions of race thought.

"Historical instruction without the constant accompaniment of geography has no solid foundation." Our subject-matter is mankind on the earth, and therefore based on Geography.

Constructive work, in illustration of life and industries, demands manual work for this department.

Method of development—

The subject-matter of each course is first outlined under topics from history or selections from literature; each topic in history or selection from literature is treated as a whole and carefully outlined by the teacher and the class, with the accompaniment of blackboard maps, drawings, charts and pictures. The aim is to leave a vivid mental picture with the pupil. Definite sub-topics or questions with references are assigned to the class for fuller study.

Oral and written expression of the subject-matter with illustrative drawings and maps is required of each student.

A selected sub-topic with its headings is developed with class work into a written paragraph, and made the basis of instruction in the principles of English grammar and composition.

Each pupil's notebook shows outlines of all topics and selections studied, paragraphs developed, illustrative maps, and also outlines of assigned sub-topics.

Term outlines for the language and story work of grades one to four of the Training School and of the history and story work of grades five to eight are required of students in this department.

Lesson plans for the teaching of stories in each of the grades from one to four and for the teaching of history topics in each of the grades from five to eight are required of students of this department.

Grammar and Composition.

In the grades the aim is to use the written vocabulary of the child as the basis for instruction. The child keeps a list of the correct forms of sentences that he has used incorrectly. He is drilled on these until they sink into automatic habits of expression. Any rules that will assist the child in the expression of his thought are committed to memory. In grades six and seven the pupils use a text on grammar and composition. Each student prepares from the grammar and composition all the rules needed in his daily work. In grade eight the pupils review and commit to memory the fundamental principles and rules of English grammar and composition.

The work of the grades is made the basis of the instruction in grammar and composition in the Normal School.

The plan of work is the same for all classes and may be illustrated in connection with the work in history. In each topic in history the teacher directs the pupil in the selection of sentences, stating the main points of the topic. The teacher chooses the point in grammar or composition that he thinks best meets at that time the needs of the class, as the tenses of the verb. About this point he groups the mistakes of the pupils. As each statement is written on the board the pupils are given definite instruction on the grammatical point illustrated by the sentence. Other points are

touched on as the sentences permit or the mistakes of the pupils warrant. A record is kept of the points studied to prevent any possibility of careless work. The pupils are required to prepare on the different points in grammar and composition from a text-book. In this way the subject-matter of grammar and composition is taken up by topics in the order of the importance of the topics to the individuals of the class. The pupils learn the rules and principles of grammar and composition at the time when they need them in thought expression.

Composition work is based on—

1. History topics of the grade.
2. Geography topics of the grade.
3. Current events.
4. Imaginative stories.

The topics are outlined by the teacher assisted by the class, and the skeleton put on the board. The points of one heading are worked out to be developed into a paragraph. The main rules of composition are taught in connection with the paragraph, i. e., unity, clearness, emphasis, simple figures of speech, etc.

The paragraph is developed as follows, bringing out the grammatical relations:

Work out with the class the points of the outline to be developed into a paragraph. Ask questions to bring out material for a topic statement. When this has been obtained, ask questions to bring out the form by which this may be best expressed, i. e., How many thoughts have you to express? Are they of equal value? What kind of a sentence must we have to express them? (simple, complex, compound) Having found out the kind of sentence, ask questions to bring out the subject and predicate and their modifiers. Put sentence on the board as it is constructed. Develop each sentence in the same way, laying particular emphasis on the grammatical points of the day.

Correction of Errors.

Oral English:

During the oral expression the teacher notes the typical mistakes of the pupils. These are written in correct form for the pupils with references indicated.

The pupil makes a record of correct form, prepares from the grammar and composition or the dictionary the uses of the words and the application of the principles violated. The pupil must put this in a record book and must be ready to recite at stated periods.

Written English:

In connection with each topic there is written work to test the pupil's knowledge of the subject-matter and his power to use the principles of composition in which he has been instructed. To do this and to insure the remembering of the correct forms, the following plan for the correction of papers and the use of corrections by the pupils has been adopted:

1. The teacher selects from the pupil's papers sentences containing typical errors and writes these sentences correctly with the place of error underlined.

2. The teacher requires the pupil (a) to copy correct form of sentence in a book for corrections; (b) to memorize the corrected form; (c) to select short, typical sentences, using the troublesome forms of nouns, pronouns, verbs, etc.; (d) to conjugate troublesome verbs, using sentences; (e) to decline nouns and pronouns, using sentences.

3. The teacher arranges the sentences selected, emphasizing the central point for the day in grammar and composition and the correct use of the forms used incorrectly by the pupils.

4. The teacher requires the pupil to underline in the written story the forms emphasized in the sentences selected and to prepare, from the grammar and composition, on the points touched on in class. In this way the dangers and disadvantages of class instruction are largely avoided and each pupil receives instruction on the point of especial interest to him at a given time.

Development of History and Literature Courses.

Introductory: Stories and reading of Grades one to four.

Reading: Teach as many stories as possible. In this way the child gets the relation between the thought and the spoken, written or printed symbol for the thought. This relationship is the basis for the child's work in reading.

Grade I. A series of simple, imaginative stories which deal with social relations and personal conduct are adapted from standard folklore and fairy tales, as "Jack and Jill,"

"The Old Woman and Her Pig," "The Ugly Duckling," "Kila."

Grade II. Selections adapted from fairy tales, myths and legends of many lands; stories of adventure and activity, as "Chicken Little," "Jack and the Beanstalk," "Willow Pattern "Plate," "Maui and the Alae Birds," "Theseus," "Robinson Crusoe."

Grade III. Selections from the best world stories used for oral lessons, including Story of Ab, Robin Hood Stories, animal stories, as "Rikki, Tikki Tave;" Greek stories as "Argonauts;" Norse stories as "Siegfried," Hawaiian stories as "Pele and the Flood." History: Christmas, Thanksgiving, Washington's Birthday, Indian life.

Grade IV. Varied selections from the classics as Greek and Norse myths, Old Testament stories, Pioneer history stories, Nuremburg Stove, etc., Hawaiian hero stories.

Grade V. History: By a series of pioneer biographies, the story of frontier life in America from the fifteenth to the nineteenth century, is taught; e. g., Cabot, De Soto, Champlain, Fremont, Hero Tales and Tales of Chivalry. Literature: Water Babies, Aladdin and the Wonderful Lamp, Thor and the Giants, etc.

Grade VI. Colonial period of American History presented under such topics as Discoveries and Explorations, Settlement of Virginia, Colonial Life, William Penn, Indian Life. European topics, as Persian Wars, Hero stories of Greece and Rome, Punic Wars, Crusades. Literature: Ivanhoe Evangeline, Miles Standish, Selections from Lamb's Tales from Shakespeare, Kingsley's Greek Heroes, etc.

Grade VII. Revolutions: American Revolution, Reformation in Germany, Puritan Revolution, French Revolution. National heroes, as Gustavus Adolphus, William Pitt, Lafayette, Nelson.

Literature: Selections as Holmes' Grandmother's Story of Bunker Hill, Dickens, Christmas Carol, Scott's Tales of a Grandfather.

Grade VIII. History: America Under the Constitution, Rome Under Julius Caesar and Augustus, French Revolution and Napoleon, Story of South African Confederacy, England's Conquest of India, Union of North German States,

Union of Italian States, Governments of the World, Hawaiian History.

Literature: Selections as Scott's Talisman, Stevenson's Treasure Island, Shakespeare's Midsummer Night's Dream, Lowell's Vision of Sir Launfal, etc.

Grade IX, or Freshman. History: Study of Ancient History, Oriental Nations, Greece and Rome; subject-matter and setting for stories in the grades of the Training School.

Literature: Gayley's Classic Myths. Selections from English and American Literature to give breadth, appreciation and background for grade work.

Grade X, or Sophomore. History: Grade topics from mediaeval and modern history of Europe dealt with from the point of method in presentation and expression for the teacher and to give scope and background for grade work.

Literature: Study of Ivanhoe, Vision of Sir Launfal, Idylls of the King, Merchant of Venice with emphasis on method of teaching such stories in the grades.

Grade XI, or Junior. History: Study of the development of the English people in relation to Europe and America. Emphasis placed on method of teaching, presentation and expression, background for topics taught in the grades of the Training School. Study of topics from Hawaiian History.

Literature: Study of De Coverly Papers, Romola, Macbeth, Alhambra, Don Quixote, etc., as selections from the field of literature, carefully placed in setting of general literature and history. Method of development, presentation and expression emphasized as preparation for grade teaching.

Grade XII, or Seniors. History: American History, a continuation of European History—topics of Grades V to VIII developed according to general method and to give scope and background for grade teaching.

Literature: Study of selections from the world's great authors, as Browning, Heine, Tennyson, Dante, Goethe, Stevenson, Kipling and others. Method of development, presentation and expression emphasized.

Two Years' Course.

First Year—Methods of teaching.
Second Year—Methods of Supervision.

INDUSTRIAL DEPARTMENT.

Woodwork.

Organization.

(a) Classes—

This department includes the boys from all of the grades in the Training Department and all the cadets in the Junior and Senior classes of the Normal Department.

(b) Time—

	Periods per week.
All grades	1
Freshmen	3
Juniors	3

Equipment.

The equipment of this department includes the principal woodworking tools, a circular saw, a scroll saw, a lathe and other machinery with electricity as motive power.

Inter-relation With Other Departments.

The department keeps in touch with the other departments by constructing relief maps, physical apparatus, etc., for use in those departments. In this way relationship is established with the following subjects: Geography, Physics, Mathematics. The study of woods, stains, etc., is taken up in connection with the doing of the work.

Methods of Teaching.

The pupils start at once to make something of real value. During the course of construction, they are instructed as to the proper methods of using the tools. As difficulties are met with, the causes are explained, and the pupils are shown how to avoid or overcome them.

At this point, other difficulties of the same nature are explained.

Domestic Science and Art.

The plan and purpose of this course is essentially practical. There is a demand for a knowledge of the art of cooking. Our present quarters, thoroughly equipped, enable us to offer a course in the art and science of cooking. The practice and theory are carried on along parallel lines.

In addition to the instruction given to the Normal classes, there is work in cooking and sewing in the Training School.

This instruction will be given by the Pupil Teachers under the direction of the teacher of Domestic Science.

The work is carried on along the following lines:

(a) Art and science of cooking.
(b) Art of cooking for Training School pupils.
(c) Essential properties and nutritive value of food.
(d) Sewing (making of aprons and other necessary equipment).

During the past three years the work has been carried on on a self-paying basis. Lunches are prepared and sold to teachers and pupils on the basis of 5 cents per lunch. The teachers are served with the same lunch that the pupils are, and each pays 5 cents for his lunch. The work is done by the pupils of the upper grammar grades and the first-year Normal pupils.

A kitchen garden is carried on in connection with this department of the work. Vegetables are grown in the garden for use in the kitchen. Banana, papaia and mango trees furnish fruit in season.

The pupils prepare about one hundred lunches during the year. The following 25 are typical of the daily lunch:

1. Boiled ham; mashed potatoes
   Junket; cookies
2. Baked beans
   Pineapple sherbet; cake
3. Potato salad
   Cottage pudding; chocolate sauce
4. Tomato soup
   Mince pie
5. Salmon loaf; baked potatoes
   Soft gingerbread; lemon sauce
6. Boiled mutton; mint sauce
   Creamed onions; orange charlotte
7. Fish chowder
   Fruit jelly; spiced cookies
8. Meat stew
   Papaia sherbet; buttercup cake
9. Cream of potato soup
   Rice pudding; caramel sauce
10. Cheese fondue; rice
    Lemon sherbet; raisin cookies
11. Clam chowder
    Chocolate ice cream

12. Turkish rice
    Apple pie
13. Meat loaf; mashed potatoes
    Cream puffs
14. Salmon chowder
    Chocolate and cocoanut cake
15. Vegetable salad
    Creamy rice pudding
16. Cream of corn soup
    Doughnuts
17. Meat stew; dumplings
    Grape sherbet; whipped cream
18. Macaroni; cheese and tomato sauce
    Prune souffle; custard sauce
19. Fruit salad
    Blanc mange; guava jelly
20. Meat curry; rice
    Banana ice cream; cake
21. Cream of onion soup with croutons
    Lemon pie
22. Cheese souffle; popovers
    Bread pudding with dates; lemon sauce
23. Corn chowder
    Strawberry ice cream; cake
24. Hamburg steak; tomato sauce; rice
    Papaia sherbet; cookies
25. Brunswick stew
    Banana whip; sponge cake

Domestic Art Department.

The work in domestic art is made to supplement the work of the kitchen and to meet the needs of the pupils. Aprons and towels are made as needed in the work. Instruction is given each pupil in the making of garments needed to meet her present need.

First Term.

Dressing of a Doll Hygienically—

1. Study of doll in relation to human figure.

Types of Doll to be Dressed—

1. Infant
2. Child
3. Woman

Drafting of Patterns for Doll—

Free-hand Cutting of a Pattern—

1. Paper cut size of front of doll by measurement.
2. Armholes, neck, waistline, etc., cut by holding it up to doll.
3. The back cut in same way.

Placing of Pattern on Material With Regard to

a. Warp and woof threads
b. Design of goods
c. Nap of material
d. Economical cutting
e. Allowance for seams
f. Pinning of patterns

Cutting—

a. Accuracy in cutting

Fitting—

1. Pinning of seams until garments fit the doll
2. Trimming of armholes and neck
3. Determination of waistline
4. Adjusting of gathers
5. Pinning of sleeves

Hand Sewing—

a. Running
b. Basting
c. Stitching
d. Backstitching
e. Overcasting
f. Overhanding
g. Gathering
h. Felling
i. Putting on bands
j. Whipping ruffles
k. Buttonholing

Second Term.

Undergarments—

1. Study of Patterns:
   a. Markings
   b. Directions as to placing of patterns on material
   c. Directions as to allowance of seams
   d. Relationship of parts of pattern to the whole
2. Adaptation of Patterns:
   a. Size of person in relation to pattern

Third Term.

The Making of a Dress:
Primary Considerations—
1. Suitability to climate
2. Suitability to occasion
3. Suitability to type of person
4. Computation of cost
Use and Adaptation of Patterns—
(See Second Term)
Placing of Pattern on Mtaerial—
(See First Term)
Basting—
Seams basted according to markings of pattern.
Fitting—
1. Demonstration of a well-fitted dress.
2. See 1, 2, 3, 4, 5, under fitting, First Term.
3. Hanging of skirt:
   a. Measure to determine length.
   b. Pinning to obtain evenness at bottom.
Sewing—
1. Hand-sewing
2. Sewing machine
   a. Treading andsetting of needle, etc.
   b. Stitching
   c. Oiling and care of machine
   d. Machine attachments

Mathematics.

Arithmetic, algebra and geometry—both concrete and demonstrative—are taken up in the normal classes from the academic side and also from the method side, with the emphasis on the latter.

In arithmetic, the work that will have to be presented in the grades is made the basis for the work in the normal classes, that of the first four grades consisting mainly in the application of the four fundamental operations to whole numbers, and of the next four grades in the application of these four operations to fractions and denominate numbers, and in the study of mensuration and percentage and its applications. The work is both incidental and formal, the incidental resulting naturally from the study of geography, manual work, etc.

We take up the main type-forms to be used in the grades, at first noting the general principles involved, and later the same work more in detail, illustrating and explaining in full.

From the standpoint of the teacher, we study and become familiar with the use of the different units of quantity used in measuring distance, surface, bulk, weight, time, etc.

We compare with our type-forms, other ways in which problems may be worked out then decide which are the best, and give reasons for such decision.

We take up briefly the history of the teaching of arithmetic, and discuss the aim and scope of the subject.

The last year's work is taken up more from the standpoint of the supervisor than from that of the assistant teacher. Term outlines are discussed and prepared, and the work belonging to each particular grade is taken up more in detail than in the previous years. A study of texts bearing on supervision in mathematics is made, also more is done than before in discussing the good points and the less desirable points of different textbooks. The psychology of number is taken up in so far as it aids in mapping out courses, in choosing and rejecting subject matter, and in employing certain methods in teaching.

Science.

This department of the normal school deals with the biological sciences, zoology and botany; the physical sciences, geography, physics and chemistry; and nature study.

The aim of the department is to give each pupil an intimate knowledge of the home environment, to give the pupils a working knowledge of the scientific principles, a general knowledge of the world whole as compared with the home, and the methods of teaching and supervising courses in the biological, physical and nature study fields.

The academic work is given in the eight grades of the Training School and in the lower classes of the Normal. In the upper classes, the work is from the child's, teacher's and supervisor's point of view.

The method of the department is inductive. The pupil gains his knowledge as far as possible from excursions, examination of specimens and personal knowledge of the home environment. Summaries are made and principles deduced. The home knowledge is then compared with the wider field—the world. No regu-

lar text-book is followed, but several are used for daily and reference work. Maps, charts, pictures, blackboard illustrations, and laboratory experiments are all used to make clear the thought of the topic under consideration. Drawings, objects and models made by the pupils and oral and written expression are required of all students.

Geography.

Geography is the study of the earth and its relation to the plants, animals and men that live on its surface.

This work begins in the first grade with the location and mapping of the school room, and after a careful study of the home geography and a comparison of this with each continent, is summarized in the eighth grade by world geography.

The same general topics are studied in each grade, but with emphasis on different continents, and more detailed work in the upper than in the lower grades. Geographic principles are always emphasized.

In the first two years of the Normal the topics are practically the same as the grades, but with much more time given to details, and cause and effect. This gives a background for the cadet's training in teaching. The methods of teaching geography in the primary and grammar schools are considered in the fourth and fifth year, and the work of supervising in the sixth year.

Physiology and Hygiene.

This subject is treated from the practical side. It plans to give the pupils a general knowledge of the anatomy, physiology and hygiene of the body and the first aids to the injured. The work is taken up topically in all the grades, but the point of emphasis differs. In the lower grades the cleanliness and obvious anatomy of the hands is studied, whereas in the eighth grade it is the nerves of the hand that receive attention. The course given in the Normal School covers the work of the grades, but with even more detail and actual work in bandaging and school sanitation and hygiene. The Gulick Hygiene Series is used as a text.

Physiology.

Hands—

1. Poisonous nature of dirt.
2. Dirtiness of hands and nails, and effects.
3. Washing the hands.
4. Care of nails—trimming, etc.
5. Sores and cuts, etc.
6. Joints in the hands and fingers.
7. Pores.
8. Structure of the skin.
9. Uses of hands.
10. Uses of the skin.
11. Muscles of the hand—structure and uses.
12. Feeling with the hand—nerves.
13. The general structure of the arm.
14. Blood vessels of the arm.
15. Pulse.

Feet—

1. Cleanliness.
2. Cuts and bruises.
3. Tendons and muscles of the foot.
4. Ankle joint.
5. General structure of the leg.
6. Proper shoes.
7. Walking.
8. Joints.

Face—

1. Cleanliness.
2. Face skin compared with hand skin.
3. Perspiration.

Ears and Eyes—

1. Cleanliness.
2. Structure and function.
3. Foreign bodies.
4. Diseases, abnormal conditions, accidents.
5. Sound and music.
6. Ears and eyes of other animals.
7. Hearing and seeing compared with other senses.

Hair—

1. Cleanliness.
2. Structure and function.
3. Color.
4. Baldness.
5. Hair of other animals.

Neck—

1. Structure and function.
2. Necks of other animals.
3. Cleanliness.
4. Diseases, etc.

Clothing—

1. Uses.
2. Cleanliness.
3. Clothing of animals.
4. Fitting of clothing.
5. Proper material.
6. Laundrying of clothing.

Food—

1. Hunger.
2. Eating—teeth.
3. Digestive juices.
4. Water as food.
5. The alimentary canal.
6. The lymphatic system.
7. Storage of food in the body.

Sunshine—

1. Description and uses.
2. Relation to plant health.
3. Relation to bodily health.
4. Relation to disease germs.

Pure Air—

1. Definition and usefulness.
2. Impurities.
3. Respiration.
4. Functions of the blood.
5. O. and CO_2.
6. Relation to lung diseases.
7. Methods of ventilation.

Rest and Sleep—

1. Necessity.
2. The daily cycle.
3. The body an engine.
4. Growth during sleep.
5. Care of sleeping room.
6. Dreams.
7. Ratio of rest and exercise.

Exercise—

1. Necessity.
2. Best methods.
3. Relation to breathing and circulation.
4. Relation to muscle and fat.
5. Relation to endurance and longevity.
6. Relation to mental work.
7. A long life.
8. Work and play.
9. Games.

Accidents and Wounds—

1. Cuts.
2. Bleeding in general.
3. Internal bleeding.
4. Bleeding from capillaries.
5. Bleeding from veins.

Personal Hygiene and Sanitation.

Open to Seniors of Course A.

Conditions of health—

Sunshine.
Air.
Food.
Exercise.
Work.
Rest.

Conditions of ill health—
- Alimentary canal:
  - Stomach.
  - Intestines.
  - Throat.
- Heart and blood.
- Lungs.
- Head:
  - Ear.
  - Eye.
  - Nose.
  - Teeth.
  - Aches.
- Skin.
  - Sores.
  - Nails.
  - Hair.
- Bones.
- Nerves.

Accidents—
- Wounds—cuts.
- Burns and bites.
- Fractures, dislocations, sprains.
- Bandaging.
- Hemorrhages.
- Shocks, unconsciousness.
- Poisons.
- Drowning.
- Foreign bodies.

Care of Sick—
- Room.
- Bed.
- Food.
- Baths.
- Operations.
- Disinfection.
- Convalescent.

Special topics—
- Colds, etc.
- Constipation.
- Headaches.
- Typhoid.
- Tuberculosis.
- Measles.
- Baby.
- Games and occupations.

Sanitation—

Food.
Air.
Water.
Waste.
Microbes.
Quarantine, etc.
Kitchen, etc.
Diningroom.
Bedroom.
Bathroom.

Physics and Chemistry.

Daily throughout the year.

Laboratory work, excursions, recitations.

The teaching is from real things, and the aim of the course is that the pupils acquire.

1. Practical information concerning the common physical and chemical phenomena of their environment.

2. Actual training in logical thinking, in accuracy of expression, and in power to work out, individually, the elementary problems in these field.

The work in physics is closely interrelated with the manual training work, and chemistry is likewise related to the cooking, and the practical affairs of the household.

Physics.

The design of the course in physics is to prepare the students to teach the fundamental principles of physics, and to illustrate by simple experiments with inexpensive apparatus some of the phenomena. The choice of subject-matter rests largely on the every day experience, and each topic is illustrated by application of the principles within the range of observation of the pupils.

The topics discussed fall under the following headings: gravity; including the pendulum; mechanical powers; mechanics of liquids; mechanics of gases; sound; heat; light; magnetism; electricity.

An important part of the work is the construction of apparatus from available, though perhaps crude material, designed for use in the schools. This apparatus is largely made in the Manual Training Shop.

Chemistry.

The course in chemistry considers a series of topics vitally connected with the hygiene of the school and the home. The atmosphere, its composition, properties, contamination and examination, leads up to a study of ventilation, the problems of schoolroom air, lighting and etc. Dust and micro-organisms, their detection and removal, are treated of in a way bearing directly on the management of schools. Water and water supplies, sewage and household waste are examined from the same point of view.

The subject of food, its composition, adulteration and the relative food values of food material forms another division of the work quite as important for the teacher, since nutrition plays an important part in the condition of the child. A study of dietaries and food values gives an intelligent application of the facts previously considered, and a useful knowledge of some of the laws of right living.

Outline of Work in Chemical and Physical Science.

1. The Point of View of Physics and Chemistry.
2. Lever.
3. Air.
4. Wheel.
5. Water.
6. Sewing machine.
7. Salt.
8. Telephone.
9. Solids, liquids, gases.
10. Tuning fork.
11. Glass.
12. Pumps.
13. Sugar.
14. Windmills and waterwheels.
15. Starch.
16. Magnet.
17. Coal and oil.
18. Lenses.
19. Soaps and fats.
20. Telegraph.
21. Metals.
22. Stove.
23. Aicds.
24. Ukulele.
25. Organic compounds.

26. Clock.
27. Wood.
28. Steam engine.
29. Chemistry of plant growth.
30. Liquids in general.
31. Fermentation.
33. Chemistry of digestion and nutrition.
34. The sun and heat.
35. Rational feeding of animals.
36. Street car and electricity.
37. Composition of animal bodies.
38. Lamps and light.
39. Rational feeding of man.

The Lever (type specification for physical apparatus):

The pupil cuts from a one-inch board of sugar pine a piece five inches wide and ten inches long, an upright piece two inches wide and ten inches long is screwed to the middle of the first piece.

A notch one inch wide and one and a quarter inches deep is cut in the top of the upright. A block is made which fits loosely into the notch; a small nail driven into the block on each side and resting in grooves in the upright complete the fulcrum.

A meter stick made of oak is then slipped into a mortice in the block, and the lever is complete.

Biology.

The aim of this course in biology is to give the pupils a comprehensive view of the plant and animal kingdom, from the lowest microscopic forms of the fungi or the protozoa to the tree on the one hand and the vertebrate animal on the other.

Such types will be studied as will give them a knowledge of the four divisions of the plant kingdom and eight divisions of the animal kingdom and enable them to classify the flora and fauna of their locality with respect to these divisions.

Classification of Local Types.

Types to Be Studied.

I. Thallophytes—Plants whose leaves and stems are not differentiated.

1. Fungi:
   (1) Yeast
   (2) Molds
   (3) Rusts
   (4) Mushrooms
   (5) Bacteria
2. Algae—Low order of plants containing chlorophyll. Classified according to color:
   (1) Spyrogyra—Found on stagnant ponds.
   (2) Hydrodictyon (or water net).
   (3) Chara—Found in fresh water.
   (4) Gloeotrichia.
3. Lichens—A combination of algae and fungi.

II. Bryophytes—A step higher than Thallophytes:
1. Liverworts—Always chlorophyll bearing aquatic or dry land.
2. Moses—Chlorophyll bearing; have stem and leaves; abundant and varied.

III. Pteridophytes—Next higher than Bryophytes:
1. Ferns (Filicales)
2. Horsetails (Equisetales)

IV. Spermatophytes—Seed-bearing plants:
1. Gymnosperum:
   (1) Pines
   (2) Cypress
   (3) Yew tree
2. Angiosperms:
   (1) Herbs
   (2) Trees

Classification of Animal Kingdom.

I. Protozoa—Microscopic on celled animals.
1. Amoeba
2. Infusorial forms
   (1) Paramoecia
   (2) Vorticella

II. Porifera—Obtainable on the sea coast.
Sponge

III. Coelenterata—Hydroids.
Hydras

IV. Echinodermata—Fixed forms of animal life.
1. Star fish
2. Sea urchins

V. Vermes—
Earthworms

VI. Mollusca—Easily obtained.
1. Clams (mussels)
2. Oysters

VII. Arthropoda—Easily obtained.
1. Crustacea:
(1) Lobster
(2) Crab
(3) Shrimp
(4) Crayfish
2. Insecta:
(1) Mandibulata—Mouth parts mandibulate
(a) Grasshopper
(b) Cricket
(2) Haustellata—Mouth parts suctorial
(a) Honey bee
(b) Butterfly
(c) Moth

VIII. Vertebrata—Animals having a backbone:
1. Fish
2. Batrachians:
(1) toads
(2) frogs
(3) salamanders
3. Reptiles:
(1) lizards
(2) turtles
4. Birds
5. Mammals

Detailed course in leaflets.

Course in Applied Biology.

This course is a study of the structure (Morphology) and the function (Physiology) as applied to the biological forms taken up in the general biology course. The general relation between these and the human body will be noted. Th diseases of plants will be taken up and their relation to man emphasized.

Detailed outlines of work will be furnished on application.

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